

**Special 510(k) Summary of Safety and Effectiveness:
Line Extension to the Xia Spine System**

Submission Information

Name and Address of the Sponsor of the 510(k) Submission: Howmedica Osteonics Corp
59 Route 17
Allendale, NJ 07401-1677

Contact Person: Karen Ariemma
Regulatory Affairs Specialist

Date of Summary Preparation: August 20, 2001

Device Identification

Proprietary Name: Xia Stainless Steel System
Common Name: Spinal Fixation Appliances
Classification Name and Reference: Spinal Interlaminar Fixation Orthosis,
21 CFR 888.3050
Spinal Intervertebral Body Fixation Orthosis
21 CFR 888.3060
Pedicle Screw Spinal System
21 CFR 888.3070

Predicate Device Identification

The Xia Spinal System consists of Monoaxial and Polyaxial Screws, Hooks, Blockers, Rods, and Connectors.

Description of Device Modification

This submission is intended to address a material modification to the Xia Spinal System as well as dimensional changes to the components. The subject device, named the Xia Stainless Steel System, is a line extension of the Xia Spinal System. The predicate Xia Spinal System is fabricated from titanium alloy. The subject Xia Stainless Steel System is fabricated from stainless steel.

Intended Use:

The Xia Spinal System and the Xia Stainless Steel System are intended for use in the noncervical spine. When used as a pedicle screw fixation system, the Xia Spine System and Xia Stainless Steel Systems are intended for patients: (a) having severe spondylolisthesis (Grades 3 and 4) at the fifth lumbar - first sacral (L5-S1) vertebral joint; (b) who are receiving fusions using autogenous bone graft only; (c) who are having the device fixed or attached to the lumbar and sacral spine; and (d) who are having the device removed after the development of a solid fusion mass.

When used as a pedicle screw fixation system, the Xia Spinal System and Xia Stainless Steel Systems are also intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of the thoracic, lumbar, and sacral spine: degenerative

spondylolisthesis with objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudarthrosis).

When used as an anterior screw fixation system or a posterior hook and sacral/iliac screw fixation system, the Xia Spinal System and Xia Stainless Steel Systems are indicated for patients with degenerative disc disease which is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies, spondylolisthesis, fracture, spinal stenosis, spinal deformities such as scoliosis, kyphosis, lordosis, tumor, pseudoarthrosis or revision of failed fusion attempts.

Statement of Technological Comparison:

The Xia Stainless Steel System shares the same intended use, and basic design concepts as that of the currently available Xia Spinal System. Mechanical testing demonstrated comparable mechanical properties to the predicate components.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

SEP 24 2001

Ms. Karen Ariemma
Regulatory Affairs Specialist
Howmedica Osteonics Corp.
59 Route 17
Allendale, New Jersey 07401-1677

Re: K012870

Trade/Device Name: Xia Stainless Steel System

Regulation Number: 21 CFR 888.3050, 21 CFR 888.3060, 21 CFR 888.3070

Regulation Name: Spinal Interlaminar Fixation Orthosis, Spinal Intervertebral
Body Fixation Orthosis, Spondylolisthesis Spinal Fixation
Device System, Pedicle Screw Spinal System

Regulatory Class: Class II

Product Code: KWP, KWQ, MNH, MNI

Dated: August 24, 2001

Received: August 27, 2001

Dear Ms. Ariemma:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

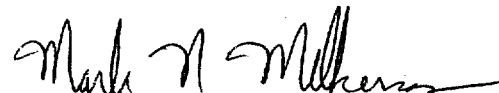
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

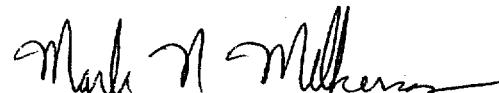
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address
<http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



for 
Celia M. Witten, Ph.D., M.D.

Director
Division of General, Restorative
and Neurological Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

510(k) Number (if known): K012870Device Name: Xia Stainless Steel System

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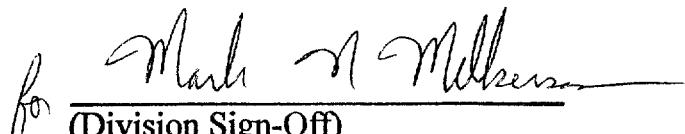
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(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use _____ OR Over-The-Counter Use _____ (Per 21 CFR 801.109)
(Optional Format 1-2-96)


(Division Sign-Off)
Division of General, Restorative
and Neurological Devices

510(k) Number K012870